

UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte BRENT R. STOCKWELL, ALEXIS BORISY,
and MICHAEL A. FOLEY

Appeal 2007-1158
Application 09/611,835
Technology Center 1600

Decided: November 16, 2007

Before DONALD E. ADAMS, DEMETRA J. MILLS, and RICHARD M. LEBOVITZ, *Administrative Patent Judges*.

LEBOVITZ, *Administrative Patent Judge*.

DECISION ON REHEARING

Appellants request reconsideration of our Decision entered Apr. 20, 2007 (“Decision”) in which we reversed the Examiner’s final rejection of claims 89-156 under 35 U.S.C. § 103, but set forth a new ground of rejection of claims 89-156 as obvious over Stylli in view of West, Burgin, and Chiang. The request for rehearing is granted-in-part.

ISSUES

The following issues are raised by Appellants in their Request for Rehearing:

1. Whether we erred in our interpretation of step (d) of claim 89;

2. Whether we erred in finding the subject matter of claims 154-156 suggested by Stylli in view of West, Burgin, and Chiang; and
3. Whether we erred in finding the subject matter of claims 89-153 suggested by Stylli in view of West, Burgin, and Chiang.

1. CLAIM INTERPRETATION

Claim 89 reads as follows:

A method of discovering a desired two or higher order combination of compounds having the ability to affect a biological property of living cells in a way that is indicative of the potential for therapeutic efficacy in an animal, said method comprising the steps of

- (a) providing at least forty-nine unique combinations of at least seven different compounds,
- (b) contacting each unique combination with living test cells under conditions that ensure that each contacting is segregated from the others,
- (c) measuring or detecting said biological property of the test cells as an indication of the effect of each combination on the test cells,
- (d) identifying combinations of compounds that have an effect on a property of the test cells that is indicative of the potential for therapeutic efficacy in an animal, and
- (e) at any time during said method, contacting each compound in the combination identified in step (d) with said living test cells and thereafter measuring or detecting said biological property of the test cells as an indication of the effect of each compound on the test cells, wherein the combination identified in step (d) constitutes said desired combination if the effect of the combination on said biological property of the test cells is greater than the effect of each compound, individually, on said biological property of the test cells.

In step (e), each compound in the combination “identified in step (d)” is tested for activity on the cells “at any time during said method.” Because

the term “identified” is past tense, we read it to mean that the act of identification in step (d) had already occurred. Thus, we interpreted “at any time during said method” as recited in step (e) to mean at any time after step (d) has been performed (Decision 4-5).

Appellants contend that we erred in our interpretation because step (e) could be performed before step (d) (Request for Rehearing 3). Citing a hypothetical example in which each compound in a combination is tested for activity (i.e., step (e) of claim 89) prior to identifying combinations that have an effect on test cells (i.e., step (d) of claim 89), Appellants conclude that the “example unambiguously demonstrates that the Board’s” interpretation is incorrect (Request for Rehearing 3).

We are not persuaded that we erred in interpreting claim 89. Step (e) recites “at any time during said method, contacting each compound in the combination *identified* in step (d) with said living test cells.” Compounds are contacted with cells which are “identified in step (d).” In other words, it is determined what compounds to contact with cells by the act of “identifying” which is recited in step (d). Therefore, step (e) must follow step (d).

In Appellants’ hypothetical example, they describe how compounds can be tested “at any time” in a method of testing compounds for activity against test cells (Request for Rehearing 3). However, Appellants do not explain how their hypothetical example corresponds to the language of claim 89, particularly step (e). Of course, it is *possible* to devise an example in which compounds are tested “at any time during” the method, but this is not the issue. Rather, the issue is whether the claimed language of step (e) is reasonably interpreted to mean that it could be performed before step (d).

Appellants have not persuaded that we erred in our interpretation of claim 89.

2. CLAIMS 154-156

We find Appellants' arguments persuasive as they pertain to claims 154-156 (Request for Rehearing 3-5). Accordingly, we grant the request for rehearing with respect to the rejection of claims 154-156 as obvious over the cited prior art and modify the Decision by withdrawing the rejection of claims 154-156 over Stylli in view of West, Burgin, and Chiang.

3. CLAIMS 89-153

Appellants contend that we erred in rejecting claims 89-153 as obvious over Stylli in view of West, Burgin, and Chiang.

Appellants argue that we mischaracterized the claims as being directed to “a method of screening combinations of compounds which affect a biological property of living cells” (Request for Rehearing 6). They contend:

As is clear from the preamble of claim 89, reproduced above, and which the other independent claims share, the claims are directed to methods of discovering a desired two or higher order combination of compounds having the ability to affect a biological property of living cells in a way that is indicative of the potential for therapeutic efficacy in an animal.

(Request for Rehearing 6.)

To the extent that Appellants are arguing that cited prior art does not describe testing compounds “indicative of the potential for therapeutic efficacy,” we refer to the discussion of the Chiang patent in our Decision:

in discussing the use of combinatorial chemistry to identify new drugs, Chiang describes approaches in which different pools of chemicals are screened for pharmacological activity

(col. 2, ll. 1 - 11)

(Decision 10). Thus, Chiang expressly discloses discovering “drugs” which would be understood to be useful in the therapy of disease, meeting the preamble of claim 89 of “discovering … compounds” that have “the potential for therapeutic efficacy in an animal.”

Appellants also contend that the difference between independent claims 89, 114, 135, and 149 and the prior art is that “in the prior art pooling assays, the loss of activity when compounds A and B are separated produces an *unsatisfying* result for the researcher, whose purpose is to identify individual compounds having a desired activity” (Request for Rehearing 7).

We do not agree that this alleged “difference” distinguishes the claims from the prior art. As summarized in our Decision, the prior art teaches combinations of compounds (e.g., telomerase inhibitors), contacting the combinations with test cells, and determining their biological activity (*see* Decision 9, particularly the discussion of West, col. 11, ll. 43-48) – which together with Stylii satisfies the limitations of steps (a) through (d) of claim 89 (*see also* Decision 6, referencing Answer 3). The prior art also teaches testing each individual compound in the pool (*id.*) – which meets step (e) of claim 89. Finally, the prior art describes the limitation of claim 89 that “the effect of the combination on said biological property of the test cells is greater than the effect of each compound, individually, on said biological property of the test cells” (Decision 11-12). Appellants do not point to an error in these findings. Moreover, Appellants do not explain how their characterization of the prior art (“loss of activity when compounds A and B are separated produces an *unsatisfying* result”) distinguishes itself from steps (a) through (e) of claim 89.

CONCLUSION

The request for rehearing is granted to the extent that our original decision of Apr. 20, 2007 is modified by withdrawing the new ground of rejection of claims 154-156 as obvious over Stylli in view of West, Burgin, and Chiang.

TIME PERIOD

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

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